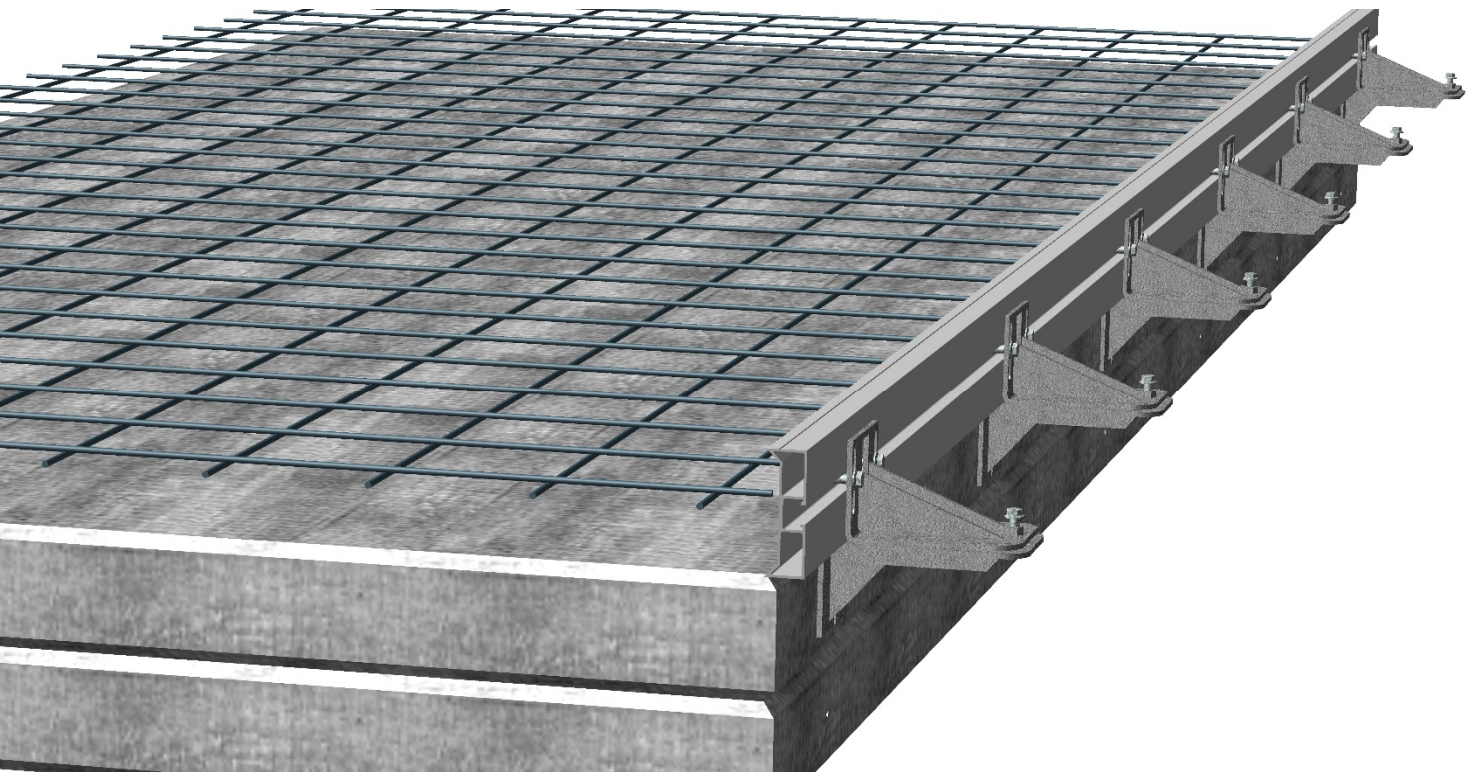




PSA Aluminium Tilt-up Formwork System

An innovative and sustainable formwork system for stack casting of tilt-up panels

+ PSA ALUMINIUM TILT-UP FORMWORK SYSTEM

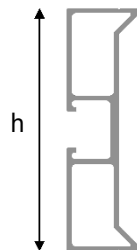
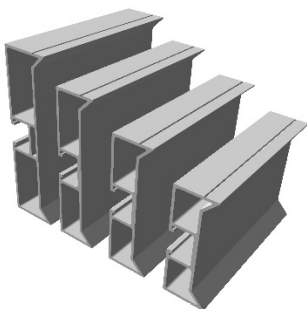
PSA Aluminium Tilt-up Formwork is an innovative and sustainable tilt-up formwork system for casting panels. The system enables contractors to simply and easily form and pour multiple tilt-up panels onsite using reusable components with minimal to no waste. The system allows panels to be formed with a higher degree of accuracy with a substantially lower cost when compared to traditional tilt-up forming methods. Another great advantage is the ability to machine trowel to the panel edge, saving time and money.

Bullet Points:

- + Allows for accurate panel finish.
- + Low number of system components reduces cost for stock and material handling.
- + Cost effective solution
- + Rigid components allow for high accuracy.
- + Build to last for many uses.

+ PRODUCT RANGE - ALUMINIUM FORMWORK PROFILES

The system comprises of 4 Aluminium Formwork Profiles in a height of 125, 150, 175 and 200mm to allow for commonly used standard panel thicknesses. All profiles come in lengths of 5.8m.

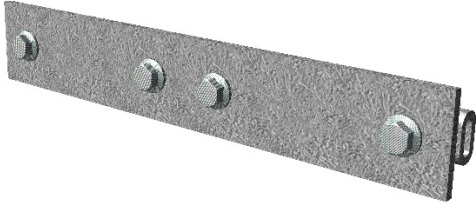


Profile overview			
Product Code	Description	Profile heights h (mm)	Profile length l (m)
AFW125-5.8	Aluminium Formwork 125mm x 5.8m	125	5.8
AFW150-5.8	Aluminium Formwork 150mm x 5.8m	150	5.8
AFW175-5.8	Aluminium Formwork 175mm x 5.8m	175	5.8
AFW200-5.8	Aluminium Formwork 200mm x 5.8m	200	5.8

If a shorter length is needed, the Profiles can be cut to the required length using a mitre saw.

+ JOINING OF PROFILES

To extend the length of a profile, multiple profiles can be joined using the AFWJB Formwork Joiner. The Formwork Joiner comes pre-installed with 4 bolts and slides into the profile on the back of the joined Formwork Profiles.



AFWJB Formwork Joiner



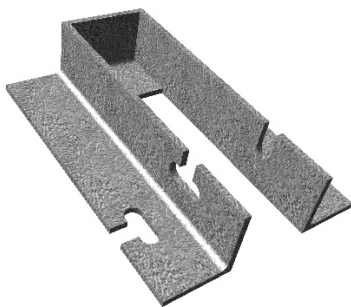
2 profiles joined using the AFWJB Formwork Joiner

+ CORNER CONNECTIONS

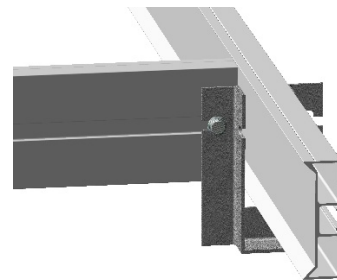
The corners of a tilt-up panel are formed by joining 2 Aluminium Formwork Profiles with the AFWEB Formwork Corner Joiner.

When casting the first panel, the AFWEB Formwork Corner Joiner is mounted from the top. For all subsequent panels the AFWEB is mounted from the underside, keeping the top of the profile free of obstructions and allowing for a good finish of the panel.

The AFWEB Formwork Corner Joiner can be used with all 4 profile heights and for both, right and left corners.



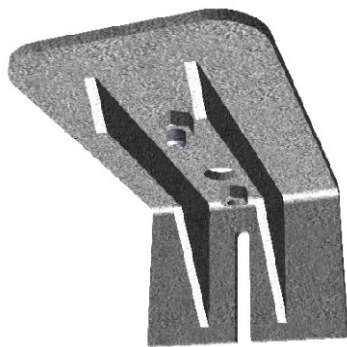
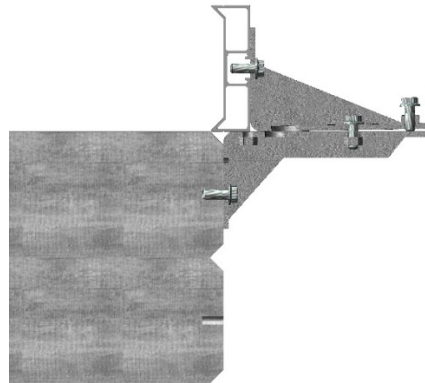
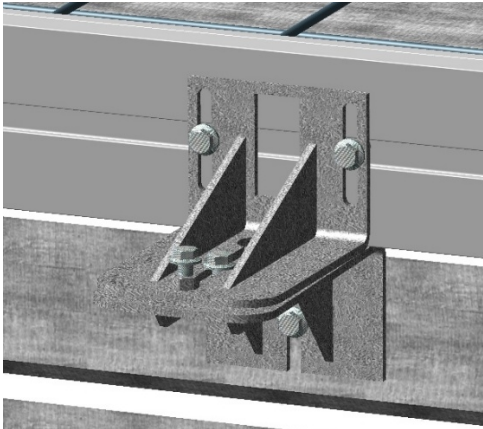
AFWEB Corner Joiner



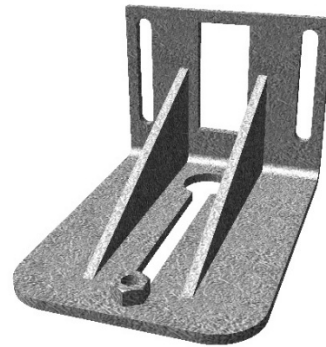
2 profiles joined using the AFWEB Corner Joiner

+ CONNECTING THE PROFILES TO LOWER PANELS

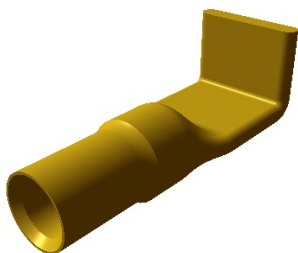
The use of AFWBB Formwork Bottom Brackets and AFWTB Formwork Top Brackets allows for a rigid connection of the Aluminium Formwork Profiles to the supporting panel even when the panel on top has the same outer dimensions. The lower panel is equipped with 1260BEF M12 Form Ferrule and the AFWBB Bottom Bracket is connected using M12x25mm Connection Bolts. The Bottom Bracket provides a connection point for the AFWTB Top Bracket, which is joined using the included M12 Connection Bolt. The top bracket is equipped with an adjustment bolt to adjust the angle of the formwork profile. The formwork profile is connected to the Top Bracket using a T-bolt connection to the slot in the back of the formwork profile.



AFWBB Formwork Bottom Bracket



AFWTB Top Bracket



1260BEF M12 Form Ferrule

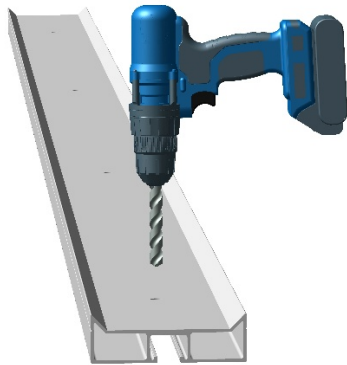


M12x25 hex cap screw

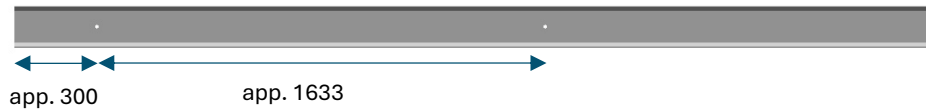
+ PREPARATION OF THE ALUMINIUM PROFILES BEFORE THE FIRST POUR

Connection points for Threaded Inserts

To install the anchors points for the upper panels we recommend drilling holes with a diameter of 12.5mm in the centre of all profiles before the first use. We recommend drilling the first hole at 300mm from the end of the profile and then drill additionally holes in a spacing of about 1633mm leaving an end space at the other end of app. 600mm.



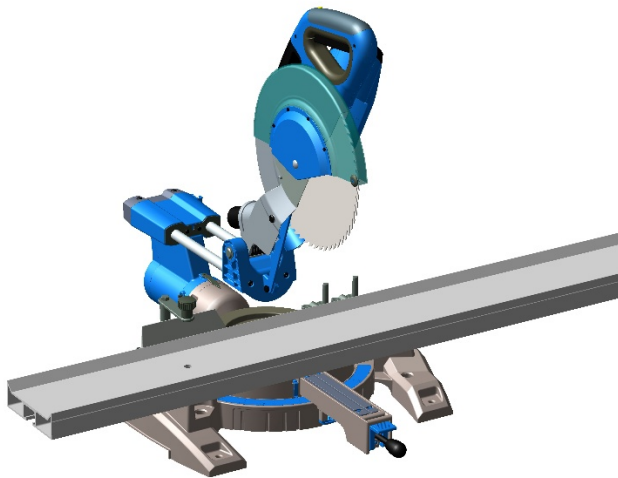
Drilling of holes



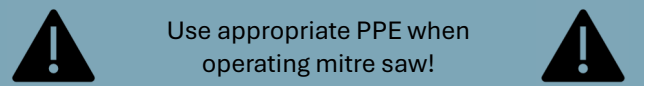
Recommended hole spacings

Preparation of shorter profiles

If shorter lengths of profiles are required, the aluminium profiles can be cut using a mitre saw with a metal blade.

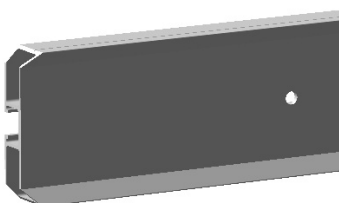


Cutting of aluminium profiles

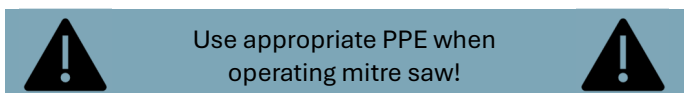


Profile preparation for corners

To form corner connections of the profiles, the edges of the inner aluminium profiles can be cut using a 15mm/45° chamfer so that the profiles fit in the corners without allowing a leakage of the concrete.



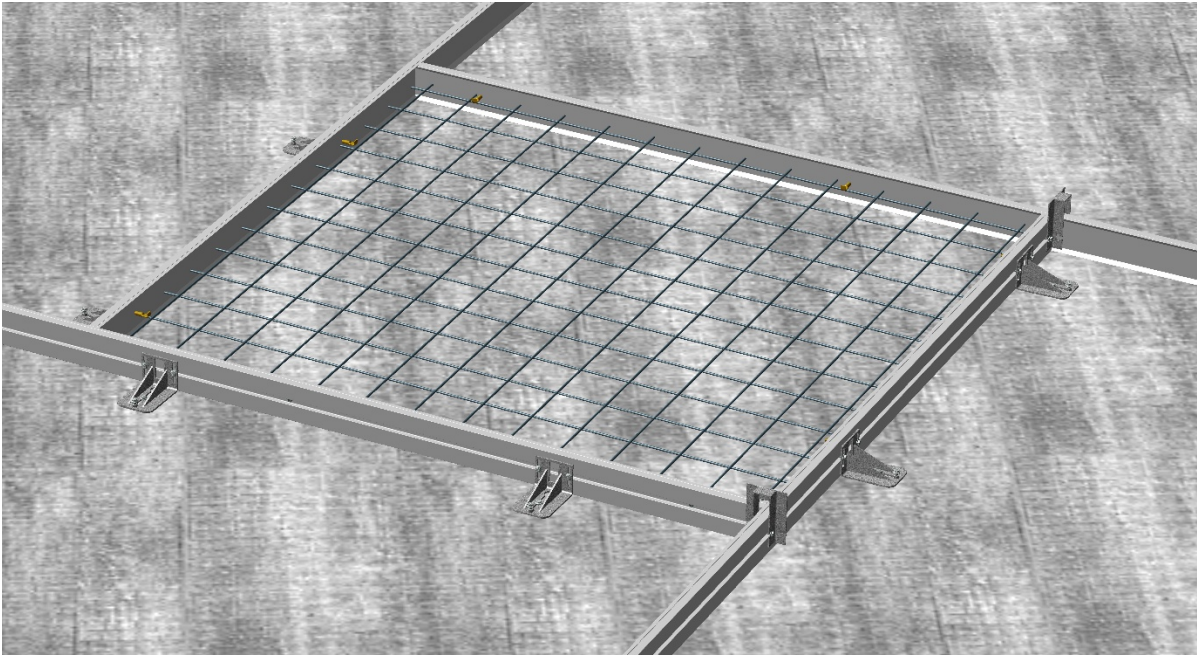
Profile prepared for corner connections



+ INSTALLATION OF THE FIRST PANEL

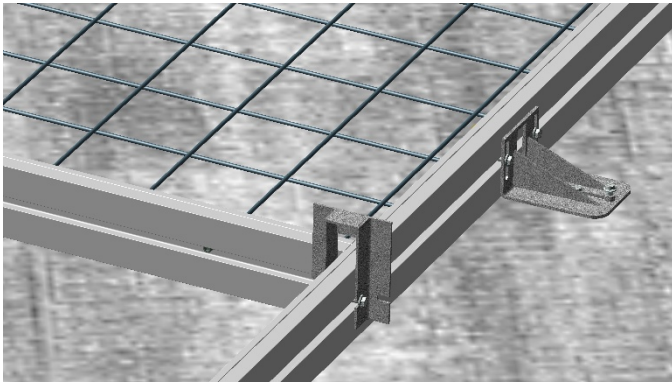
Mark up the dimension of the first panel on the concrete slab and lay out the Aluminium Formwork Profiles as required. Use AFWTB Formwork Top Brackets to form a rigid connection of the profiles to the floor slab using appropriate post-installed anchors.

Install the 1260 Form Ferrule with the M12x25 Hex Cap Screw through the drilled holes in the Aluminium Formwork Profiles to allow for the connection of the Aluminium Formwork Profiles for the upcoming panels.

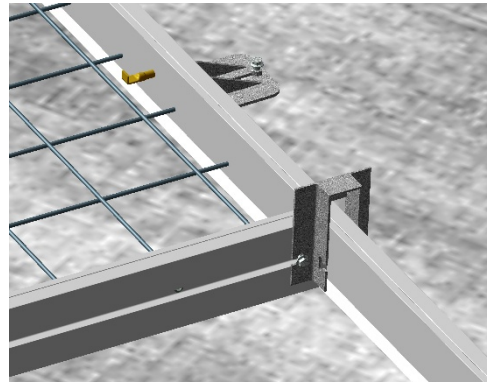


Profiles installed and ready for the pour of the panel

Use AFWEB Corner Joiner in conjunction with TBOLT Connections to connect the Aluminium Formwork Profiles in the corners of the panel.

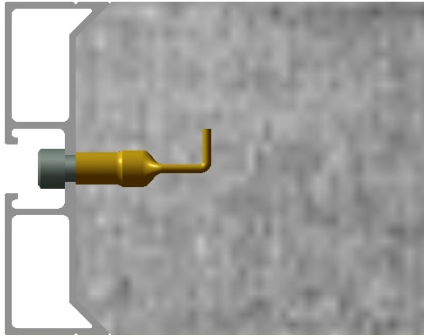


AFWEB Corner Joiner installed from the top

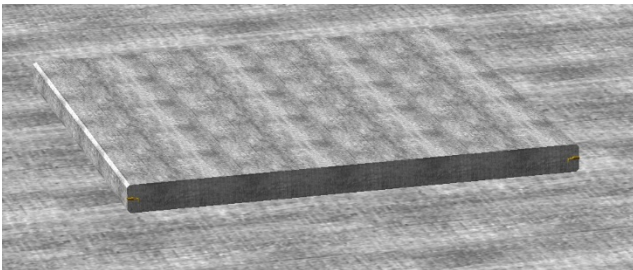


AFWEB Corner Joiner installed from the top

After the concrete pour un-screw all M12 screws from the 1260BEF Form Ferrules to allow for the disconnection of the Aluminium Formwork Profiles.



M12x25 hex cap screw connected to 1260BEF M12 Form Ferrule

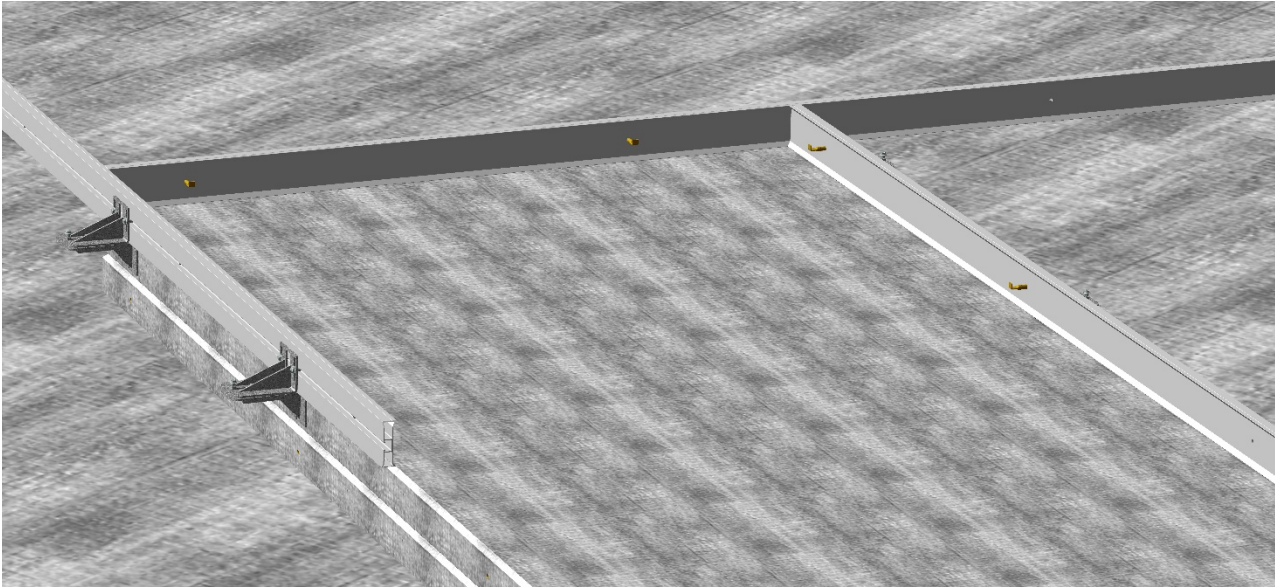


Finished panel after removal of Aluminium Formwork Profiles

+ INSTALLATION OF FURTHER PANELS

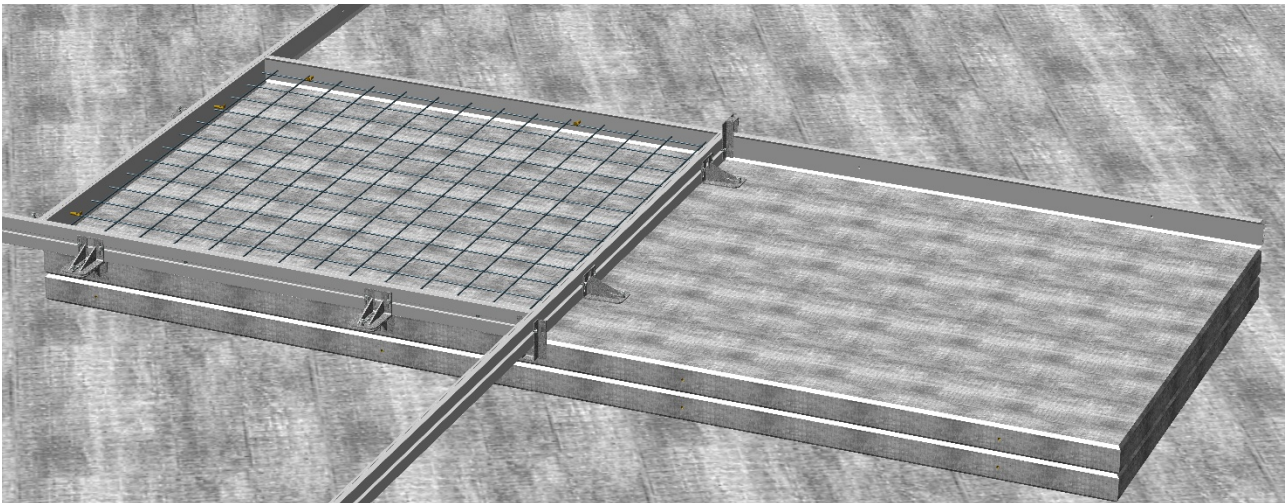
Mark up the dimension for the next panels and lay out the Aluminium Formwork Profiles as required. Install AFWBB Bottom Brackets using M12 Bolts in the 1260 Form Ferrules, use AFWTB Formwork Top Brackets to form a rigid connection of the profiles to the AFWBB Bottom Brackets where the bottom panel and the top panel share an edge.

Install the 1260BEF M12 Form Ferrule with the M12x25 Hex Cap Screw through the drilled holes in the Aluminium Formwork Profiles to allow for the connection of the Aluminium Formwork Profiles for the upcoming panels.

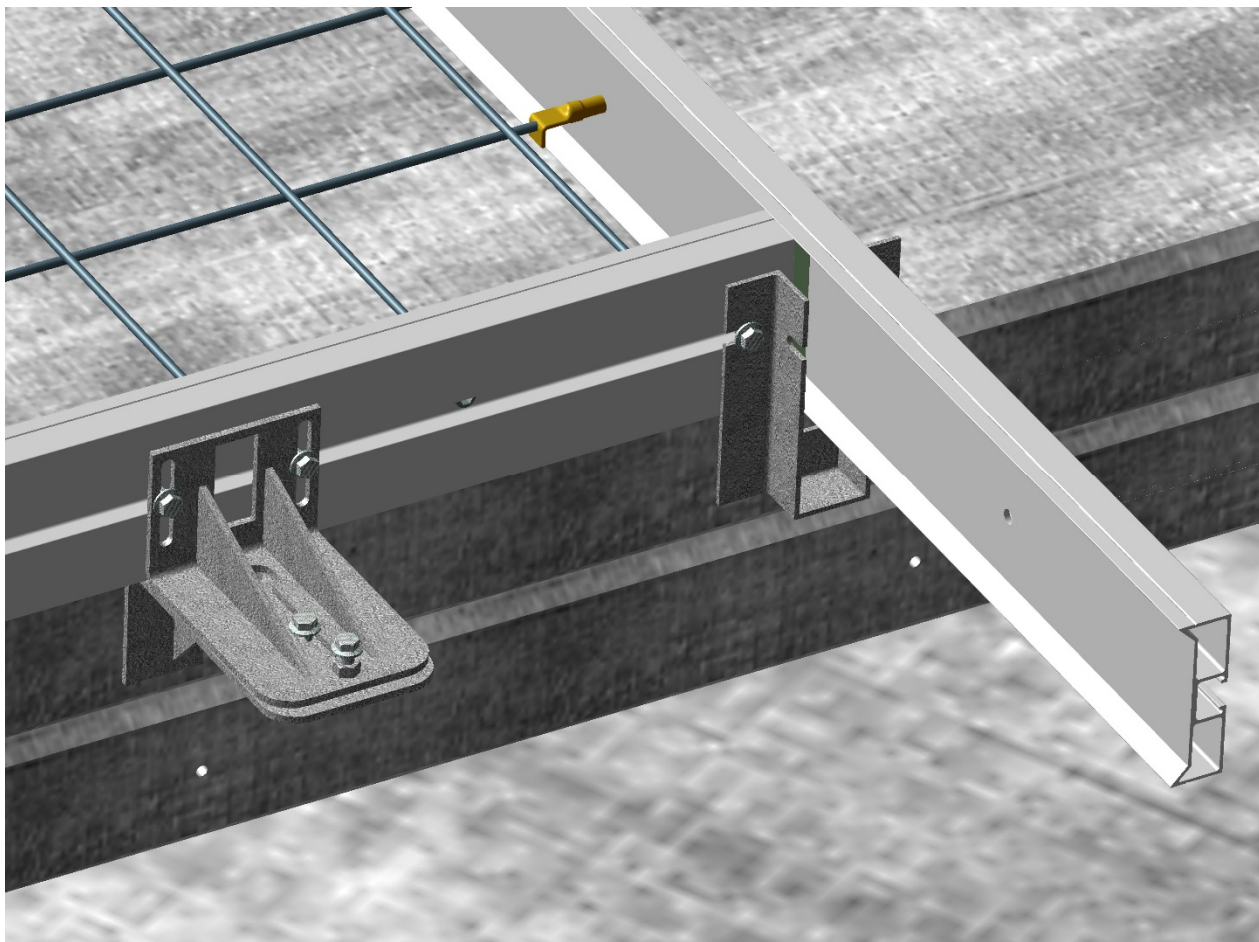


Aluminium Formwork Profiles including 1260BEF M12 Form Ferrule installed

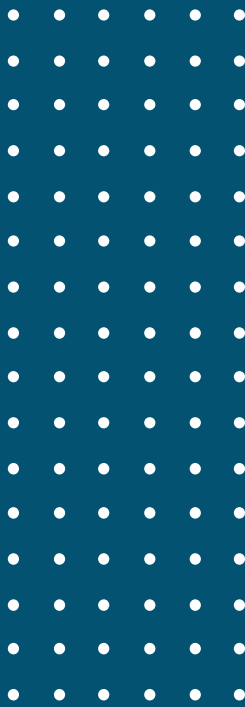
Where the upper panel is smaller compared to the bottom panel, use AFWTB Formwork Top Brackets to form a rigid connection of the profiles to the panel below using appropriate post-installed anchors.



Aluminium Formwork Profiles installed for a smaller panel on top of a larger panel – use AFWTB Top Brackets in conjunction with suitable post-installed anchors to connect Aluminium Formwork Profiles to the surface of the lower panel



AFWEB Corner Joiner installed from the bottom to allow unrestricted troweling of the panel



psa.com.au

For technical questions please contact technical@psa.com.au.

MELBOURNE

PSA Victoria (Head Office)

T: (03) 9764 0031
E: vic@psa.com.au (General enquiries)
E: vic@psabraces.com.au (Brace hire)
1257 Ferntree Gully Rd, Scoresby VIC 3179

TOWNSVILLE

PSA Queensland

T: 0408 339 836
E: qld@psa.com.au (General enquiries)
E: qld@psabraces.com.au (Brace hire)
27-31 Taryn Street, Mount St John QLD 4818

BRISBANE

PSA Queensland

T: (07) 3279 4555
E: qld@psa.com.au (General enquiries)
E: qld@psabraces.com.au (Brace hire)
136 Mica St, Carole Park QLD 4300

ADELAIDE

PSA South Australia

T: 0409 041 099
E: sa@psa.com.au (General enquiries)
E: sa@psabraces.com.au (Brace hire)
U1/17 Ceafield Rd, Para Hills West SA 5096

SYDNEY

PSA New South Wales

T: (02) 9756 2756
E: nsw@psa.com.au (General enquiries)
E: nsw@psabraces.com.au (Brace hire)
13-15 Penelope Cres, Arndell Park NSW 2148

PERTH

PSA Western Australia

T: (08) 9439 6405
E: wa@psa.com.au (General enquiries)
E: wa@psabraces.com.au (Brace hire)
9 Yeates Rd, Kwinana Beach WA 6167



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